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6^B

NOVEMBER, 1935

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Amateur Transmitters

Tupes: QB2/75, QC05/15

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quarter of actual size

from each other by a screen-grid, thus reducing anode-control grid capacity to a minimum. When used as H.F. amplifier or frequency multiplier in controlled transmitters there is practically no reaction of the anode circuit on the grid circuit, and self-oscillation is impossible with screening outside the valve. Neutralisation is unnecessary, so it is very easy to alter the wave-length at short notice. These screen-grid valves give greater amplification than triodes under the same conditions.

Table A shows the various electrical properties of the Philips amateur transmitting valves:-

CLIADACTEDICTICC

CHARACTERISTICS:							
Table A.	Screen Grid QC 05/15.	Valves QB 2/75					
Filament Voltage	4.0	10.0					
Filament current*	1	3.25					
Saturation current*	400	2,000					
Anode voltage	490-500	2,000					
Screen grid voltage	75-125	300-500					
Max. anode dissipation	15	75					
Anode dissipation on test	20	100					
Max. screen grid dissipation	3	15					
Amplification factor*	225	200					
Mutual conductance (slope)*	1.4	1.4					
Int. resistance*	160,000	150,000					
Anode-grid capacity	.001	.02					
Max. diam. of bulb	50	100					
Max length	160	210					
*Approximate values.							



TRANSMITTING VALVES

AMATEUR RADIO

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1st November, 1935.

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Amateur Radio

IT REQUIRED TWO TEARS
Here is the book you have
well as the book as the book you
Chockfull of the kind of information you don't find in other
books. Frank C. Jones, W. W.
Smith Jayenay Hawkins, Clays
Smith Jayenay Hawkins, Clays
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Built of the bear of the pages
of writing this modern handbook,
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EDITORIAL . .

There can be no doubt that amateur radio, as a hobby, has attracted more "types" of men than any other we know of. We have them rich and we have them poor, and possibly with no two minds alike. There are scores of reasons why a chap takes up radio, and to quote even one example would be superfluous; but there is a sole common object behind all these reasons, and that is to get what one can out of the game, whether it be enjoyment or satisfaction. The number that are in the game for what they can put into it are few and far between, but let that pass!

Radio costs money, and so does the enjoyment or satisfaction that is derived from it. The rich man can naturally afford more than the poor man, but, unless he is a fool, he is just as anxious to get as much out of radio per pound put into it as his not-so-fortunate brother ham.

Watts-per-pound is one form of efficiency and financial gain, but to get those watts requires something more than skill—it requires £.s.d. A "wise" ham is one who can make his finance stretch a long way. A still wiser ham is one who considers that a shilling well spent is a pound saved. The former "wise" ham thinks that by buying a dozen cheap articles for his pound he is getting more for his money than the latter, who purchases only one good article for the same amount.

Experience of those who have been buying radio gear for years tells that bargains in the "junk" store are few and far between. It also teaches that cheap gear is actually dearer in the long run than the quality stuff. The lite and performance of the cheap gear cannot approach that of the genuine article. Workmanship, precision and efficiency cannot be purchased cheaply.

To have a shack of quality gear is something to be proud of, whether it represents £2 or £200. Junk has no attraction, and speaks for the intelligence of its owner. The advertisements in "Amateur Radio" come from houses of repute and reliable quality. Buy their goods and watch the watts as well as the bank balance go up.

A Message from the Advertiser-

"HELP US TO HELP YOU!"

Radiating Systems

Design and operation of the Hertz antenna and transmission line feeders.

By Douglas N. Lianett, N.S.W.

Antennas may be divided into two fundamental groups—the Hertz antenna and the grounded antenna.

With the grounded antenna, this operates as a capacity with the flat top forming one side and the ground the other. Power is supplied near the ground connection, while the actual length normally is calculated in 1/4 wavelength or if operated on a harmonic frequency, 3/4 wavelength, 5/4 wavelength, etc.

Here the current and voltage distribution will be such that the current at the extreme end of the antenna will be zero and maximum at the ground connection; while the voltage will be maximum at the extreme end and zero at the ground. This is illustrated in Figure 1.

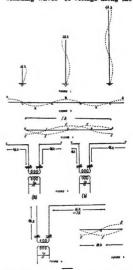
If this antenna is loaded with inductance and operated at a frequency lower than its fundamental, the same conditions will exist; although the symmetry of the voltage distribution curve will be distorted as electrical length has been added in a lumped form. The potential across the coil will be high. But all this will not change the fundamental voltage distribution in which the voltage is maximum at the extreme end and zero at ground. The current and voltage are displaced 90 degrees, thus causing zero current at the extreme end and maximum at ground.

The Hertz antenna, however, operates independent of the ground concetion. This may be erected vertically, horizontally, or in any desired plane.

Electrical disturbances travel through space or along a good conductor at a velocity of approximately 3 x 10.8 metres per second. Thus, if such a disturbance travels along a long conductor isolated in space, or practically free from the effects of other conductors or ground, the effect will be

practically the same as when the disturbance is travelling through space.

And if the wire is very long compared to the wavelength of the electrical energy, there will be set up "standing waves" of voltage along the



conductor. This is nothing more than points of maximum and minimum voltage, as shown in Figure 2.

This is a true wave motion illustrating the manner in which the electrical disturbance travels along the

conductor. The points "n" are the nodes or points of zero voltage, and points marked "a" are the anti-nodes or points of maximum voltage. The distance between two peaks of the same polarity is one wavelength. And in a good conductor. If perfectly isolated in space, the linear distance along the conductor corresponds closely to the same distance in space between the creats of two waves.

Practically, however, the conductors always is near the ground, towers, or other conducting objects, so it is not perfectly isolated in space and a certain correction factor must be used. These increase the distributed inductance and capacity of the conductor, so that actually the wavelength of the energy is slightly greater than the linear dimensions of the conductor.

Now, if the conductor, instead of having an infinite or great length, in exactly one-half a given wavelength long; and an electrical disturbance, whose period is such that it corresponds with this given wavelength introduced, a wave motion will be set up in the conductor. The standing wave will be such that the voltage node is in the exact centre with the loops at each end. The current will be 00 degrees out of phase, as illustrated in Figure 3.

With the supposition of a single initial impulse of energy transferred to this conductor, the impulse will travel in the form of a wave from one end to the other. If some means were provided for dissipating all this energy, nothing would happen. But in the free conductor, no such means are provided; and when energy reaches the end, it is reflected back and so on until all the energy has been expended in the resistance of the system. Thus the system will oscillate at a given frequency, which frequency depends entirely upon the length of the conductor.

With arrangements to supply a continuous supply of energy at this exact frequency, the amplitude of oscillations will be maintained and the conductor will form an excellent radiating system.

Figure 4 illustrates how the Hertz antenna is suitable for harmonic operation.

In designing the Hertz antenna, however, the fact that the velocity of the wave through the conductor is not quite equal to first velocity in space must be taken into consideration. At frequencies above 30,000 Keys, the correction factor is approximately .9, and for frequencies below 30,000 Keys, a correction factor of .94 to .96 should be used. But due to the high resistance of the antenna at the higher frequencies, this value is not critical.

Calculating the length of a halfwave antenna for operation at 8,500 Kc/s.

Wave- V 300,000

Wave-
length
$$=$$
 $\frac{V}{F} = \frac{300,000}{8,500} = 35.20$ metres.

Half wavelength=39.29/2 x .94=16.59 metres.

Converting to feet 16.50 x 3.28=54.45 feet, or

harmonic.

This antenna would be suitable for 17,000 Ke/s, operation on its second harmonic, or 25,500 Ke/s, on its third

54ft. Sin.

For supplying power to such an antenna, there are two general methods—the tuned feeder or the untuned matched impedence transmission line.

The tuned feeder is nothing more than a tuned extension from the antenna into the coupling circuit of the transmitter. Either current or voltage feed can be used.

Figure 4 shows that there is a current loop at the odd 1/4 wavelength intervals from the end of the antenna. This diagram also illustrates that the voltage loop occurs at the end and at every even multiple of 1/4 wavelengths from the end of the antenna. Thus, if a current feed system is used, power must be fed into the circuit at a current loop, and in voltage feed the power is supplied at a voltage loop.

In the case of current feed, arrangements such as Figure 5 may be used. In both of these, the coupling coil is located at the odd 1/4 wavelength multiple from the end of the antenna. In regard to the left-hand end of the antenna in a) the coupling is made at the third 1/4 wavelength point, and in (b) the coupling is made at

the first 1/4 wavelength. In both cases the total length of the antenna, including the feeders, is 1½ wavelengths and is operated at its third harmonic.

Since inductance is necessary for coupling to the transmitter, there must be series capacities on each side of the inductance to neutralise its effects on the electrical length. If the lengths are properly proportioned, however, and if the feeders are spaced only a few inches apart, the radiation from the two feeder wires will cancel, and the only appreciable radiation will be from the straight portions, \$\frac{1}{2}\$.

For current feed from the feeders to the radiating portion of the an-tenna, the total electrical length of the feeders should consist of multiples of 1/2 wavelength. Under these conditions, the length of the radiating nortion x-y will also be a multiple of 1/2 wavelengtth, and the feeders will connect at a current loop, Thus, in Figure 5 (a), x-y is 1/2 wavelength, and each feeder is 1/2 wavelength; while in (h) x-y has a length of one wavelength and each feeder of 1/4 wavelength, with the entire system having an electrical length of 14 wavelengths as in (a). The difference, however, is that in (a) x-y is a halfwave antenna and in (b) it is a fullwave entenna.

In voltage feed, the most commonly used antenna employs two wire tuned feeder with a voltage loop at the point of connection. The radiator may be a half or full-wave antenna, with each of the feeder wires an odd multiple of 1/4 wavelength. The same arrangement for coupling the feeders to the transmitter may be used, as shown in Figure 6.

By means of the series condensers shown in each feeder line, the electrical length of the antenna can be shortened somewhat so that tuning range can be had. But if it is desired to slightly lengthen the electrical length, parallel tuning may be used. Thus a limited frequency band can be covered with an antenna and feeder system by tuning the feeder circuit.

The untuned matched impedance transmission line, however, has the great advantage that its design and operation are almost independent of length. A two-wire transmission line has a surge impedance that is a function of the spacing between the conductors and the diameter of the wires. In the tuned feeder systems, the length of the feeders was just as important as the length of the antenna, because the entire system operated at some resonant frequency with the standing waves along the entire length of the conductor, due to the reflection of energy.

But if a transmission line is terminated by an impedance equal to its surge impedance, there will be no reflection along the transmission line, and therefore no standing waves on the conductors. And in common with all transmission lines working into matched impedances, the circuit also will transfer power very efficiently.

The desirability of this system is that the antenna can be loaded where buildings, etc., are mostly out of the induction field, with the consequent decrease in the absorption of power from this field. At high frequencies this becomes more and more important, because of the screening effect of buildings.

A 600 ohm impedance usually is accepted for most radio frequency transmission line work. Since-this impedance is a function of the spacing and the diameter of the conductors, the following equation, which is based on a 600 ohm surge impedance, can be used:—

$$D = 75d$$

where D is the distance between the centres of the conductors, and d is the diameter of the conductors.

Thus, in constructing a 460-foot transmission line to have a surge impedance of 600 ohms, using No. 4 copper wire, we can determine the spacing required. From the wire table, the diameter of the wire is 204.3 mils.

D $75d = 75 \times .2043 = 15.3$ inches.

Of course it will be necessary to feed the transmission line from a 600 ohm circuit and feed it into a 600 ohm circuit if the greatest transfer of power is to be obtained.

UK6 Fires up Five

By 6LJ.

Some dope has been gathered together by 67A with the mid of 61W. 677 and Mr. Hebrich's 666H, on 56 m.c. but all are too bushful, so I have done the dirty work. The transmitter was left running was taken distances from 3 to 3½ miles rather around the transmitter. The aerial used on the rx was a fix off, whe inside the car, and several peculiarities noticed. For a start, definite fading was noticed every 20 feet travelled from R max to R2. like an undulating plane. Even a qsc. complete fade out was noticed in clear paddorks, open fields and in a clear open line to the transmitter at certain intervals. The directional proposition one to the transmitter at certain inter-vils. The directional properties are very pronounced; this being proved by the fact that when the car was in one direction signals were R max and turn the "bus around sign were only R4.

Duplex work was done with 6HW and Dilpicx work was tone with a feet of S.5 and T m.c. According to reports by these stations, the tonal quality was excellent and the frequency as stable as crystal.

As a noint of interest, 6CA has a bel neighbout, who receives him 66CA extendibute, who receives him 6CA extendibuted on the following of the

Now for a bit of dope on the gear:— The transmitter uses a pair of 45's with 350 volts and innumerable mills arranged in a push pull, as previously published by 3ML.

The grid shorting bar is about 21 inches from the outside end and connects to a-: from the outside and and connects to as RF choke and surfainary 25,000 chas blas. The niare har is about 16 inches from outside and and under the surface and inche outwardly wound and the second 2"inches to 1 inch inwardly wound, and
the third ½ inch to 2½ inches outward.
The feeders clip on the tank rods and can
be adjusted for individual improvements.

The aerial also has copper rods, two lengths each 46 inches tapped on the colls, as shown:—

More dope on this antenna can be had from August, 1933, QST page 24.

And now the receiver. This piece of work employs a Type III, as detector and audlo.

L1 and L2 are each 7 turns, 16 SWG copper wire. 2 inch interval diameter 50 turns, 30 SWG on a 2 inch diameter, and winding eccupying about 1½ inches, and winding eccupying about 1½ inches and colls are as shown, 1200 and doesn't seem to make much difference. The condenser 11 is a very small one-consisting of two 5 inch square brass plates, meanted 1 inch aguare brass plates, meanted 1 inch aguare brass plates, meanted 1 inch aguare brass.

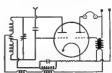
Well, gang, all the dope for the pre-sent, and let's here in on 56 m.c.

TECHNICAL EDITOR'S NOTE.

1. Correspondents to "A.R." have reported having had greater success with 46's in place of 45's on 56 m.c. These tubes are well worth trying.







INT THE CONTROL OF TH

a. when using a vertical dipole, hear ground, always try reversing feeder con-nections, it makes a difference sometime, Better still, don't use dipoles; they are NBC. Use an array of same kind and

NBG. Use an array of same kind and get efficiency.

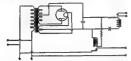
5. Correct impedance matching on 56 me and above is imperative if a few watts are to do their stuff.

A.C. Operated Keying Relay and Time Delaued Switching System

By VK2ER.

The author, whilst "pensioning off" all batteries in the shack, had to find a method of operating the keying relay. Plain A.C. proved out of the question. The method by which the trouble was overcome is shown in Fig 1. The rectifier valve came out of a Philips' 1.3 amp. battery charger, and is of the mercury vapour type.

When it was noticed that this valve mad a considerable time lag before coming into operation, it immediately suggested how the pressure could be raised on the plates of a pair of 281 rectifiers. The author found that if filament and plate were switched on together on the 281 values, the limit of plate voltage was 700v. Above this they flashed over.



By having the filaments hot before applying plate voltage, successful operation could be had on 1200 volts (yes, using the same valves).

Accordingly the plate pressure to the 281's was raised and delayed plate transformer switching arranged by the relay connected across the output of the keying rectifier. This relay also constituted a ballast on the system, with beneficial results.

An alternative to the above would be to use high resistance relays and a 100vct or 200 vct transformer, a 282 rectifier and, say, an 8 mfd condenser. The supply does not need to be well filtered. Very nice relays for either system may be purchased from automatic telephone accessory houses. However, it may be necessary to rewind them to ensure satisfactory insulation of the winding from frame.

The resistors shown in Fig. 1 are old filament rheostats.

Correspondence

Cloncurry, Queensland, September 24, 1935.

The Editor, "Amateur Radio," Box 2, P.O., S. Melbourne, S.C.5.

Dear O.M.,—Please allow me a little space in your worthy magazine in which to ventilate my pen-up feelings regarding the present "rotten operating procedure" adopted by some hams.

to ventilate my pent-up feelings regarding the present "rotten operating procedure" adopted by some hams.

In the present "rotten operating procedure" adopted by some hams.

In the present procedure in the present process of the pr

Furthermore, I would like to know why some chaps must operate outside the assigned frequencies. During the course of my duties a watch is maintained on 45 metres with the overeess mail planes, and at times it is quite surprising the number of the course of the course

This sort of thing cannot go on for ever. The time will come when the radio inspectors will act, and the lads who com-mit this breach will undoubtedly be sorry titudies, when not a little more par-ticular is well not a little more par-ticular in the sort of the sort of the sec that they are within the page of the par-before compencing to other segment band before compencing to other segments. before commencing to operate.

Trusting that these remarks will be cepted with the correct spirit. - Yours accepted faithfully, V. L. KERR (VK4LK/VJI).

Fisk Trophy Contest

The Fisk trophy contest entrants have been examined by the Federal Executive and carefully checked. They officially declare VK4 the winners, VK3 second, and VK7 third. The total points scored by the three leading stations in each State were as follows:—

VK4, 4192 (4EI, 4BB and 4AW); VK3, 4074 (3MR, 3RJ and 3HL); VK7, 3936 (7KL, 7KV and 7JB); VK5, 2983 (5FM, 5KL and 5MY); VK6, 2495 (6SA, 6FO and 6MN); VK2, 2416 (2ZV, 2EO and 2KJ); VK9/8, 460 (9NW).

A total of 55 entrants was received from all States, VK3 with 16 entrants, and VK2 and VK4 with 11 entrants each, VK5 with eight entrants and only a few from VK6, 7 and 9.

To VK5FM goes the honor of having the highest individual score of all stations participating, and also, incidently the highest number of qso's (178 contacts.

The following are the points of the leading twelve stations throughout Australia, irrespective of States—VKSFM.

MR. 1468; VKBB, 1428; VK3RJ, 1331;
VK3HL, 1274; VK7KV, 1266; VKJJB, 1700 all State, VK3 with 18 entrants. Automatical state of the leading of the le

It was apparent that the majority of the participants enjoyed this test and all are looking for another, which encourages operation on all ham bands. test; so those relay operators had better have their say now if they prefer that type of test. The Federal executive wishes to arrange these Fisk tests to please the majority, and so far the All expression of opinion on the type of the next test will be cordially received and appreciated.

A few extracts from the participants make very interesting reading:—

VK2ZV says, "My congratulations on arranging such an FB test, must say on our part that we certainly had an FB time. Personally, I think this type of test is to be preferred to the relay type."

VK5MR says, "As a matter of fact, it was the best test that I have ever been in, with plenty of time to work DX in between qso's. Personally, I did not know there was so much fun and interest in a local test after being in many DX tests."

VK2RJ says, "Contest proved very interesting, and am glad to congratulate FHG on amended rules and added interest." VK3HL says, "It was a good show and a decided improvement on the contests requiring lengthy messages to be exchanged."

VK3ZC, "Thanks for the contest. By far the best yet. Rules and scoring system were FB-the bonus points being quite worth the work expended in earnling them."

VK3UK, "The contest itself was very pleasant departure from the ordinary run of tests and the members of FHQ are to be comended on the introduction

Complete Scores of Participating Stations in Fisk Trophy Contest.

_	111	FISK	110	ony C	ont	est.	
State: Score				K3)74		VK 419	
*2LZ 2ZV 2EO 2KJ 2CW 2NY 2DQ *2EL 2HY *2HZ 2YB	1124 916 890 610 508 498 400 350 305 250	::	3MR 3RJ 3HL 3ZC 3ML 3BQ 3HG 3HG 3VK 3XQ 3OW 3PS	1466 1334 1274 1112 860 720 590 535 450 435 416	:: :: :: :: :: :: :: :: :: :: :: :: ::	4EI 4BB 4AW 4US 4UU 4JF 4UR 4JU 4YL 4UW 4DO	1602 1423 1162 1166 940 650 62; 620 474 338
=		::	3RH 3CG 3HE	388 375 365	::		
=			3WQ 3MK	180 75		=	=

State: VK5 Scores: 2963			VK6 2495			VK7 3986	
5FM 5KL 5MY 5RT 5RD 5LD	1676 655 632 335 196 170	.:	6SA 6FO 6MN 6RW 6CP	1000 780 715 184 82	::	7XL 7KV 7JB	1520 1266 1200
5HI) 5ZX	126 70	:	=		::	VK	9/8 460

*Members of Federal Executive and Non-Competitor.

of a 10 letter cypher, and also the allocation of bonus points. To win, a man needed not only to be a good operator, but also required flexible and efficient gear."

VK4El. "The contest seemed very well supported, and all bands appeared to be used by stations in all States (except, of course, VK/8/9)."

(Continued on page 14)

28 and 56 M.C. Section

Record Smashing on 28 M.C.

(Conducted by VK3JJ).

Very promising changes occurred on the 28 m.c. band during October, and the stations who were active broke some stations who were active broke some form of the first of the f Europeans.

14e mas since worked several more WK-18B as been having a better run with the W's. but on October 3 worked both FeVs and ON-AU. On the first day of the WK-ZL DX contest, he means that the work of the WK-ZL DX contest, he means that the work of the WK-ZL DX contest, he means that the work of the WK-ZL DX contest, he means that the work of the work had been pointed from bonuses alone. FB, OM! VKSSA reports that Cotober 5 seemed to be an international super super DX he had the pleasure (7) of hearing 4B and 4EI making their excellent logs! SA head worked the was unable to obtain the work of the work had been worked by the work of the work had been worked by the work had been pointed to be the work had been pointed to be the work of the work had been pointed to the work had been pointed to be the work had been pointed to the work had been pointed to be t

PK3ST.

In Victoria most of the work has been all victoria most of the work has been levely successful with DX. but 3Bh and 3YP, who are often able to be on the air on week-days, have worked of the bot of the air on week-days, have worked of the bot of the air on week-days, have worked of the bot of the air evening.

evening.

The only other VKI's active were MR 37M, 39M and 3KX, but they have and very little luck with the may be a sense of the sense

VKUKV. so, no doubt, they are getting their share of DX. Europe appears 't. The heat time for the start of the start of the the start of the start o

With all the DX work going on and the apparent good conditions, it is sur-prising that interstate signals have been very weak when heard at all, the reven-io March and April last. Evidently me minimum skip is at present too great for effective Interstate work, but this should

decrease with the approach of Summer.
There has been a little activity on 55 m.c. around Melbourne during the number, and 3DH, SKQ and 3DF control of the state o be accomplished at times during our mid-summer, similar to the 800 to 1000 mile contacts made recently in U.S.A.

EUROPE AT LAST!

EUROPE AT LAST!

This news overshadows everything else in N.S.W. 28 m.c. work. VK2LZ's patience was rewarded with the first VK2/Evropean Q80 when he worked VK2/Evropean Q80 when he worked to the control of the contro stations at 6.30 p.m.

Vanks!:—well, are they any more unusual now on 10 than on 40? Hi! 2LZ and 2HZ work them by the dozen these week-ends. 2LZ has received a report via a W? that LUIEP heard his 'phone R8!

Naturally, the news of 10 m.x. DX has meant newcomers and 2AS and 2HF have appeared and worked W and J. 2BX. one of the old-timers, doesn't appear to be able to QSO W's; is it due to his rough chirpy signal and the W's S.S. receivers?

S.S. receivers?

2HY is another who seems to be having difficulty with QSO's. He can get as good a report from J's as ZLZ, but can't raise or hear many W's. He can icar Europeans well, but can't work car Europeans with but can't work among the missing, but they should be on early way soon. on again very soon.

on again very soon.

We VK2's would like to sympathise
with the 3's, re ex-2EP; we didn't think
he could do it either from Melbourne
H!! Poor oid 2L2! Beaten by a day for
first European QSO, when telling of
working the G said, 'I worked G6LK,
working the G said, 'I worked G6LK,
working the G said, 'E worked G6LK,
working the G said, 'E worked he he before

In the BERU 28 m.c. test the scores known here are XIAY 4560, VK2LX 4071. W6VQ 2900, VK4BB 1670, JZHJ 1250, VK2HY 782, VK2HZ 200, VK2YC

In the VK/ZL DX contest 2LZ and 2HZ had 13000 and 8000 points respectively at the end of the second weekend.—VK2YC.

R.A.A.F. Wireless Reserve Notes



VMC
Total Msgs. 306

Stns. Rpting. 11 Ave. Per Stn. 27.8



VMC 1

Total Mags. 171
Stns. Roting 4
Ave. Per Stn. 42.75



(Federal Notes by the C.O.)

The compliction of the second insue of the Roper's Bulletin is well on the warnow. In this number a considerable amount of extra procedure will be given in order to expedite the present traffic handling. As the issue will not be out for further suggestions and contributions from all members.

The P.M.G. laboratories received a large bundle of crystals this week for calibration before issuing to members. They should not be long now. Holders are to be supplied with these pebbles on the plug-in style.

Federal watches, held on Monday nights, on 4,155 Kcs, have turned into achools for exercises. The whole of the 7th District attend as well as three of the 15th District attend as well as three of the 15th District attend as well as three of the 15th District attend as well as three of the 15th District attendance of

Owing to a shortage of procedurmanuals at H.Q. and whilst waiting for the new one to arrive, it has not be-n possible to supply new members with these books. If any members feel that would be as well if the returned samiimmediately to the Air Board, and they will be credited with the return.

A totally revised register of members is being printed now and will be posted to all members within a very short time.

THIRD DISTRICT NOTES. (8ZI—VKSUK.)

Owing to the fact that the majority of VMC stations were entering for the VK/ZL. Contest this month, schedules on the normal Sunday morning watches have been suspended for the four week-ends of the contest. Most sations who are not actively engaged in the contest have spent the time rebuilding essential perts of grear which have been long awaiting attention, whilst the remainder have carried on section and inter-section working just to keep their hands in.

3.86 has been endeavouring to get the other hams in Shepparton five-metre minded, and now that one of the five-metre staiwarts (3.88) has gone up to Shepparton for a while, their united efforts should have the town developing an ultrahigh complex very shortly.

3B1 is away touring the bush again, and has been so busy he has not had time to have been so busy he has not had time to the second of the sec

NC2 has had to temporarily withdraw from his section, as pressure of work is recularly. It is with the property of the recularly. It is with the property of the that we are transferring Ken. to one of that we are transferring Ken. to one of our limetive sections, as he has been with us from the inception of the Reverce. One of the greatest pleasures we hold in anticity of the property of the property of the word requesting transfer back to an active section again.

3VW will be taking his place, and he is making an auspicious beginning, as his fist and signal leave little to be desired.

We have to congratulate 3C6 on his appointment as traffic manager of WIA, Victorian Division. It would certainly desided to find a better man than the present Ramsay trophy holder.

By the time this issue is in circulation we will be in possession of our new crystals on their allocated frequencies, and

(Continued on Page 28)

Federal Headquarters Notes

I.A.R.U. CALENDER.

This has been finally dealt with and Ann has been many cear with and the LA.R.U. has been communicated with and told of our decisions. The matter of the Bucharest Conference has, however, been left in obeyance until it has been allocussed by the Convention, to be held in Eisbane, in January, 130 where the matter will be discussed in full.

28 M.C. International Test.

This test concluded at the end of September and was, no doubt, responsible for the preat interest taken in 28 m.c. during the past 5-ar. So far as is known, the world whiner will prove to be XIX with over 4.80 points. The ISSE 27 of their control of their contr enterprise in staging such a contest in spite of apparent dead conditions, which were in evidence last year.

VK-ZL Test.

This test should be very interesting and some very high scores are anticipated owing to the manner in water 38 m.c. has become a DX band.

Fisk Test.

This has been won by VK4, while VK3 ran a very close second. Its points or inspiratively we'l supported, but much more support could have been forthcoming from many States, notably VK5, rull di-talls appear elsewhere in this issue of Amateur Radio.

(Continued from page 11)

VK4YL. "I enjoyed the contest very much, but as you will see by the log I did not give much time to It. Nevertheless, Madeline, a very line effort (FHQ)." I had a vy F2 time indeed, of the contest of t

VK6SA, "Allow me to congratulate the executive in departing from the usual executive in departing from the usual procedure, whereby 7 m.c. band carries most of the traffic. The system of encouraging multi-band operation by alloting bonuses cannot be too heartly com-

ning obtuses cannot be too hearthy com-mended." Please do not send the trophy up to me here, as I will have to pay duty on it." All right, Nev. we won't (FHQ).

10 metres came to light when VK4BH and VK+El both contacted VK6SA, but otherwise was dead in all States. 20 metres was fairly active from mid-day, but owing to skip between adjacent States only few VK3/5 and VK2/3 qso's

were had.

40 and 80 metres were, as usual, well supported, but 160 metres certainly was worth looking into.

Federal and Victorian O.S.L. Bureau

(By R. E. Jones, Federal QSL Manager.)



KAICM expresses disappointment with regard to the number of cards he has received from VK. During the present year KAICM has worked and QSL'Q 77 Australian stations, and to date has only 15 received cards in return.

VK3KO has gone to New Zealand to represent his firm for a few years. He expects to be on the nir shortly under a ZL call sign, and has taken steps to preserve his VK3KO call during his absence from Australia.

to and J are coming in on 28 m.c. during 9 a.m. to noon at good workable strengths. 9 a.m. to noon at good workable strengths. During the first week in Octob's several—W6. W5 and J—were beard, but only the extremely 9(10 VK3 stations have numaged to 9(10 VK3 stations have numaged to 9(10 then. Commercial harmonics from JNJ, JNR and TDC, at the low frequency edge of the band, are exceptionally strong from soon onward to 5 ceptionally strong from soon onward to 5 VKs and the band.

Many of the leaders owed their high scores to contacts on 160 metres with all States (except, of course VK8/9). The average strength between adjacent States average strength between adjacent States was, lodeed, surprising and R8 was a good average report, with between 10 conditions as the state input. Unfortunately, 112 was the input property of the state input of the state was a state of the state of the state were quite well represented however. The majority left ft till the lust week-cend to try this band and on Saturday night, and on Sunday early, at m., it was, indeed, alive.

The Federal executive wishes to thank all participating hams for their support, and hope that the next Flak test will receive even greater support; making it quite a national test, similar to the ARRL sweepstakes.

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Hams and Hamming

These notes are written without bias or malice aforethought, and if in the writing thereof the compiler unwittingly treads on thereof the compiler unwittingly treaus on one's pet corn, please smile sweetly and forgive him. So now here's for the first scandal of the month. 52X called CXICG so long and heartly that he got a blister on his finger.

that he got a colleger on his lingor.

It is a mow the possessor a condenser mike it may be possessor a condenser mike it may be possessor as the second of the second of

nition?

nition? The said ammunition also brightens the ideas of a stonewalling batsman, I'm told. 5WW looked like some prehistoric being, so loaded up with junk was he. However, it worked, as results showed. Hi!

SMD now WAC, and if everyone canned watch like "Doc" the title would be well watch while. Congrata, O.M.!

5FM has shifted QRA close to me now, and I'm a new convert to the use of the death ray. Pete certainly can get DX,

death ray. Fete certainty can be less though,
5LO wants more Wid traffic to handle.
The more the merrier.
5WR evidently has been Q8O the League
of Nations. He sent a pile of cards away
three inches thick, and not a VR amongst

5TR has gone bush. He joins 5PL at Iron Knob. Any blacks up there, Ralph? 5RF collected his first-class op's. ticket. Congrate., Colin! 5FW awaits results on his second-class

SFW awaits results on his second-class attempt. The second class attempt of class and the suppliers of class and the suppliers. SH QRL his procesy business. SH QRL his procesy business. So ten as he does playing table tennis, yet and the supplier of the you like on antennas.

you have on antennas.

5 WJ puts over FB fone on 80 m.x.

5 YK finds time to pound brass occasionally, but is generally QRL, WIA.

Rich is one of the staunchest supporters

Rich is one of the staunchest supporters the Division possesses.

SHD and SBC, the Lloyd brothers, have such a station in the same house. I'll bet the atmosphere gets electrified when DX tooms up and they both want a go at I tooms up and they both want a go at I tooms up and they both want a go at I tooms up and they both want a go at I tooms up and they both want a go at I tooms up and they both want a go at I toom to be a good to be a good of the I toom to be a good of the

Scoop 1

"Amateur Radio" Secures Pictures of Secret Wedding of Famous Amateur [and Town Clerk of Gulch View]

3CX GETS HIS ON THE 18th!



LOOKEE!

-"Argus" Photo.

We are glad to be able to present the one and only picture of Mr. and Mrs. Alan G. Brown leaving the church after their marriage on the 18th October. Even his best friends didn't believe him, but we guess that this will convince the most sceptical that 3CK has been and gorn and done it at last. It has been reported that there were no hams at the wedding, and even the Lawd Mare of Gulchview, 3RX didn't realise what was about till he read it in the papers on the following day.

So that's the reason that he is off the air—and do we blame him?

"Do unto Others"

By FIVE REGIER.

"Sure, I'll QSL, mani the OM 78, etc." With a grap of , slief the new ham releases the key.

The tense expression relaxes and he allows a smile of triumph and happiness to wander over his face.

His first QSO!

He reaches for the top card of that new and clean pack on the shelf, and with meticulous care fills in the spaces, VK - - -

He must make a good job of it. An envelop; a stamp; and he is off to the letter box and consigns it on its way.

Weeks pass and no card comes in return. Our ham friend now has several QSO's to his credit; but still no cards. Alas, for hams, inhumanity to ham. Soon he will be as hard-boiled and cruel as the other old stagers.

"Sure, will QSL, OM. Bunkum! 1 ! Twaddle! I ! We have all been throught the same stages. All have experienced the same result. Now let us look at the problem set before us.

before us.

How can we alleviate this state of affairs? Examine the case, Brother or Stater Ham. To post a card direct costs 1½d, or Ed., and poster than the case of the case

Although it takes slightly longer the card gets there just the same.

Most of the older hams are members of W.I.A. and are familiar with this service, so are we to understand that they are too blazecareless-callous or lasy, to QSL.

Over a period of six months a census of QSL/s was taken by a competent observer by my station, and of 100 first QSO's only were NEW HAMS! We all like the other fellow's card-even if only a local. Even for word with the other fellow's card-even if only a local. Even not? Do unto others as we would have them do unto us. And here is a point that would make the work of QSL officer much easier.

The idea was mooted some time ago at a meeting of the VK5 Div. If all hams, whether members of W.I.A. or not, were to send in a large self-addressed envelope to the local QSL Bureau distribution of cards the local QSL Bureau distribution of cards would be greatly simplified. The writer adopted the system when first it was men-tioned, and it has proved 100 per cent. successful.

There is no more hunting through hundreds of cards for that clusive SLG one. It's there in the envelope waiting for him. There is less time wasted, and no confusion. So why not try it, hame?

So, from now on, O.M., when you may "Sure QSL," mean it! Thanks for QSL, sounds much better than "How about that ear 'u cow!" and it's much easier in the end.

B.E.R.U. Notes

(By VELEG.)

With the summer season approaching, the Empire stations are again coming through, and in tuture I hope to furnish regular notes from overseas.

VSIAJ wishes to QSO VK, and is on every Thursday, 7m.c., 7,175 k.c., at 1,500 c.m.t. and will be anxious to supply the VSI end of the centest. "Connie," of VSSAQ, and VS6AX assure me they will also be "on deck."

At the present time these districts are best: QSO from 1,500, c.m.t. onwards,

VUTFY, on 7,285 k.c., and VU2CQ, 7,189 k.c., both ask for VK to keep them in mind, and wish to enjoy the QSO's in October, as last year. Both these stations workable 1,000 c.m.t., when their zone is usually R3/6 and QSAD.

G6CL remarks: "The September "T. and R. Bulletin' will contain a full 'story' on the contest, and activity in Europe should

Nothing has so far been heard of our old friends, VSAF and VSAB.

In view of the approach of the contest, in may be interesting to "hams" to note the last contain office has approved of the list contain office has approved and the list contain office has approved and the list contain office has a contained by the list contained to the last contained

Old Prefix. -- Gilbert and Ellice Islands; VP1 and 2, Fiji; VQ1, Fanning

Suggested Prefix. — VR4, Gilbert and Eillice Islands; VR2, Fidi; VR8, Fanning Island; VR4, British Solomon Island; VR5, Tonga Islands; VR6, Pitcairn Island; VR7, nine other Pacific Islands under the British Government.

"Bulletin," excluding Oceania. The most important alterations are: "Y8, Mauritius, becomes VQ8; VP3, Malta, becomes LB1; Gibraltar becomes LB2.

Negotiations are proceeding with the Government of India to secure greater uniformity of prefixes in that region.

Members desiring the W.B.E. certificate are asked to forward their verification cards direct to myself (Box 41, Talkangatta), or to the Federal headquarters, W.I.A.

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Conventions and How?

The outcome of Federal Conventions of the past few years make one wonder just what we are getting out The same old questions of them. appear year after year, and some of the Divisions spend large sums of money in sending delegates to other States. Others, being unable to afford such expenditure, have to satisfy themselves with a proxy. A proxy is of little value to the Division he represents because he is able to vote as he thinks fit. Then again, one's outlook is apt to change completely when the facts of a matter in question have been explained. Thus, a Division may direct its proxy to vote one way, and after the facts are known, be sorry it did not vote in the

opposite manner. For a successful Convention we must have a representative from each Division present. This is out of the question from a monetary viewpoint. That leaves us with the unsatisfactory position of having to leave someone else to do the battling. The main outcome of Conventions is the effect of the personal contact that the representatives establish with one another. Divisional views and conditions are freely discussed, and a better understanding of the other fellow's point of view must follow. Well then, if this is all we get out of Conventions, why not hold them over the air, say every six months? We are radio men, and if we cannot conduct our business in the sense of the persons we represent, there must be something wrong with our faith in our operating abilities. Under proper control, this scheme should work well. We play chess matches with one State or two, don't we? All that would be wanted would be efficient organisation and good operators.

The Lekmek Aerial System

Australasian Engineering Equipment Co. Pty. Ltd. (T.C.C. Con-densers) report excellent business with the Lekmek precision matched Double-Doublet Aerial System. this system the Lekmek Laboratories of Sydney claim a 50 per cent. stronger reception free of static, and more stations. It gives access to the world-wide short-wave stations, and improves the volume from inter-Victorian hams would do well to hop along to Australasian Equipment Co. in Evans House, 415 Bourke street, Melbourne.

A combined meeting of all Sections will be held on the 3rd December, 1935 in place of the General Meeting arranged for the 11th December, 1935.

A talk will be given by Mr. R. H. Dovle Weston Dept. Messrs. Warburton, Franki "STANDARD MEASUREMENTS OF FREQUENCY"

COUNTRY STATIONS FREQUENCY ALLOCATION.

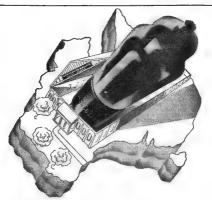
Mr. Thomson requests all country stations to make applications in their usual way for their frequency allocations. All applications must be to hand on or before the 8th November. as after that date Mr. Thomson will be leaving for New Zealand.

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Divisional Notes

N.S.ID. Division

The Institute in N.S.W. has been ex-tremely unlucky to lose the services of one of their most capable officers in Mr. R. H. W. Power, the secretary. Mr. one of their most capable officers in Mr. R. H. W. Power, the secretary. Mr. I'ower, who was secretary since the benchmark of the secretary and the secretary and the secretary and the secretary and public accountant by profession, growing business has caused the following the secretary and public accountant by profession, growing business has caused the following the secretary and public accountant by profession, growing business has caused the following the secretary and the secretary in do, while we are very sorry to lose him, is to wish him every success. Good luck, Bob, OM.

At a recent meeting of the N.S.W. Council Mr. Macgregor, VKZMT, was appointed Vigilance Officer for N.S.W. to observe how the boys were conducting thomselves and, incidentally, to do some-thing about the growing "Pirate" menace. There have been such breaches of the regulations of late that the ('ouncil took this step and members are invited to get in touch was 2MY, Mr. Macgregor, with any complaints, etc.

The following is a motion ballotted upon by the members of the N.S.W. Division, who adopted the motion:—

"That the Constitution be amended to provide for subscriptions along the fol-lowing basis":--

- (a) Full members—subscription f1/1/-per annum, to include "A.R." Full members must be licensed experi-
- (b) Associate members subscriptions Associate members — substrictions 10/6 per annum, not to include "A.R." Associate membership may be held by anyone generally interested in the science of radio.
- (c) Country members subscription 10/6 per annum, to include "A.R." Country members must reside out-side the county of Cumberland.

Resolution 2.—Re Affiliation of Radio Clubs with W.I.A., N.S.W.

"That Radio Clubs be invited to affiliate with the W.I.A. (N.S.W. Div.) upon the following terms":—

- (a) Each Club to pay an affiliation fe-of £1//- per annum; this entitles of £1//- per annum; this entitles immembership privileges at the fol-lowing rates. Full member \$1/6 per annum, associate member \$1/6 per annum, and country members \$/6 per annum.
- (b) This arrangement to take place as from the new financial year beginning March, 1936.

The membership of the Institute is growing and, judging from the number of enquiries, it will grow to even a larger degree in the next few months.

VK2YC resigned the position of 28 m.c. representative in N.S.W., owing to pressure of QSL's and VK2BX, Mr. Brunsden, was elected in his stead. Any-

one interested should write him care of the institute's Box 1784 J.J., G.P.O., Sydney.

On various occasions the Australian In-land Mission has loaned the Institute gear for exhibition, etc.. and in the event of them forming the Australian Aerial Medicul Services, the Institute was asked to co-operate and Mr. Calmar asked to co-operate and Mr.

The October general meeting was held on the 17th and Mr. J. R. Pinnell, VK2-ZR, provided a very interesting lecture on antenna systems, and judging from the number of queries from members a few antennas will be rotated in the near future

The 500 point bonus as being awarded in the VK-ZLDX contest for 28 m.c contacts was discussed at length and various opinions were expressed.

The October technical meeting provided a method for the check up on contest contacts and conditions and discussions varied from directional antennas to carrier controlled phone. The tennas to carrier controlled 'phone. The president, VK2JX, was, unfortunately, away in Melbourne and missed the meeting.

The entrants in the VK-ZL contest in N.S.W. seem to be doing well, especially those on 28 m.c. and tall scoring should be the order of the day.

On 28 m.c., 2LZ and 2HZ have both successfully contacted Europe, but VK4-El got across first for the first Australia-Europe contact on 10 m.c. FB, OM.

The Manly and District Radio Club opened their new clubroom lately, and they started a new innovation as far as they have a complete house in which store their gear and plentiful grounds to store their gear and plentiful grounds to store their gear and they should be compratulated on their initiative.

23C complains of a pirate using his call sign on 20 m.c. fone and asks him to QRT.

2JZ, of Singleton, staging a come-back challenges all and sundry to a game of draughts over the ether. Please write him at Singleton.

NORTH SHORE ZONE NOTES. By VK2VQ.

Perhaps the most interesting phase of Amateur Radio occurred during the past month. VK2LZ, who's probably the most consistent of our ultra-high most consistent of our ultra-high frequency men, succeeded in working all continents, but South America on 28 m.c. conlinents, but South America on 28 m.c. and that elustive continent, in the shape of an LU4, was heard calling him, and reporting his telephony as being R8. 2LZ is doubly fortunate in that this peak DN occurred during the contest arranged by the W.LA. and netted him sometical contest arranged by the W.LA. and netted him sometically the contest arranged by the W.LA. and netted him sometically the contest arranged by the W.LA. and netted him sometically the work of the boundary of the broken that the point search with 7,000.

On 14 m.c. Europeans pounded through from early afternoon until evening and made many contacts with VK. 7 m.c. has its usual following of Yanks, who worked like Trojans for points. The general impression was the increasing the property of the propert

game, so let's make the best of it.

Gather round and get an eyefull! That
promised new rig from 2DR has not yet
comment, Don. 3AE has caught the
exam, fever and so radio is a back
number. 2SV has been rarely heard,
maybe there's a reason, but do your
own detective work if you want to land

him.

Jack 2HG has caught a mania for smashing chairs. He declares a party is not complete without a quota of crippled sit-me-downs. Exams have been more or leas keaping him out of mischle. Weing the control of the c

waggon. Nothing stronger than a milk-shake can tempt Bob. Oh, yeah!

2VG back to the xtal grinding racket and yet finds time to use loop fone on the line up at 2HA. Suppressor grid the line up at 2HA. Suppressor grid modulation is used with quite decent results. 2QF had the gang round to concessary work for him in the matter of ether busting. 2VQ made 6 contacts in the test and each one was a continent. The QRI to take it seriously. Hi! The path of the property of the prope certain terms. These tritel ideas won't work for all and sundry, so try again. OM. Excellent keying is the future of STWYs signal and he works quite a few to the state of the

month or so with xtal. Output is the feature of the rig at 2VN. With a single 46 doubler, Morry can blow pealamps in the aerial. He has worked quite a healthy list of DX into the season of the seaso hospital—we can't say definitely whether it was the mobike or not-possibly he had only a bout of measles. Hil 2XC still up with the Newartle push and no news from him. The band was packed with Yanks calling 2HF in the packed with Yanks with Yanks with Yanks and yanks the dynamics bounce over here. Enough of this agony except that for the latest in Mae Went yanks you cannot do better than QSO 3UR or 3LD. When!

LAKEMBA RADIO CLUB (VK2LR).

The meetings of the club are beld every second Tuesday at the club rooms, 384 Canterbury-road, Huristone Park, Re-Canterbury-road, Huristone Park, Re-cently a very successful auction sale was held. Members having radio apparatus they wished to dispose of brought same along on the night of 17th September. 2QX was the auctioneer, and under his very capable hammer many bargains were "knocked down" to those who persevered with the bidding. After the sale refresh-ments were served, the chief stoward being ments were served, the chief steward being the President (2EC), who was attired in apron and cap for the occasion. At the following meeting two new transmitting members were nominated—2XU and 2VA. After general business, Mr. Pinnell (2ZR) dell'vered a very interesting iccture on "Wave Form."

On the night of Saturday, 12th October, aree representatives from Lakemba at-On the night of Saturday, 12th October, three representatives from Lakemba attended the Manly Radio Club's "Smoko." beld at the new club rooms at Fairy Bower, Manly. A very enjoyable evening was spent, and great credit is due to Mr. Cook, who provided some excellent entertainment, especially when he gave a ventriloquist act; but, not having a doll, he who had to sit on his knee and try to move his mouth at the right time.

Several members report having worked very good DX during the contest, but at times QRM makes things hopeless. The five-metre group state that the latter band ave-metre group state that the latter hand is very dead, most of the boys having gone down to the lower frequencies during gone down to the lower frequencies during the test. The meetings of the club for November will be on the 12th and 26th. November will be on the 12th and 26th will be some at any time, and any further engalries will be answered by the Hon. Secretary.

NEWCASTLE A.B.C. NOTES.

(By 2RG.) Interesting lectures have been lately given at club meetings by 2FN on "The New Metal Tubes," 2MS on "Cathode Ray Oscillograph," and 2KG on "Suppressor-Grid Modulation."

Local hams have been concentrating on the International DX Contest, and some good contacts were made during the first week-end. 2ZC's hag included 28 good connects were made during the first week-end. 22C's bag included 28 Europeans, even with his reduced power of 40 watta. Jim said that, if he hadn't been working during half the week-end, he may have had a real score. Hi!

as may have had a real score. Mi:
2DG, who has only been on the air for a
short time, uses SE on 20 MX, and, as well
as a number of Europeans, recently worked
an LIU for his WAC. Vy fb work, Kelth:
2UF and 2MT are also amongst the 20
MX. DX as usual, the latter now having
worked over 40 countries. 280 does not worked over 40 countries. 250 does not fet the chance to get on much these days. A hig bottle is now parked in the rig of 2CS, and the sig, gets out very well. Another bottle the same size is used as the neutralising condenser. Hi!

After a couple of months' inactivity, 2FN is again punching the key, the rig now being 50 Tritet, 210 pa. Occasionally the crystal misbehaves, and a rac. sig. is

the result.

Arrangements are being made to instal BMX RX and xmitters for a plane to ground and vice versa: timesmission on the occasion of a local sero negrant. 22W and 2C have the work in hand, and their thorough preparations should casure suc-

WESTERN SUBSTRIBE NOTES. (ZO 2MY.)

Some of the boys are getting a bit slow on QSI,L promises lately. KA-1-AP and VU-2-CQ complain of unfulfilled promises. KA-1-AP's card and nhote would rrace any shack, the photo, being a particularly fine piece of work and well worth a station's QSLL. What about it, boys? worth any

Our sympathles to 2EL, 2XZ and 2RV, who have been visited by butriars. Obviously the one that visited Eric at 2EL however, was no ham, as he preferred jewellery to that famous "62.

2NJ heard on 40 again with nice T9 note first time since taking unto himself a YF. Congratulations, OB, from the

Rente 2MQ also hath said "I will," and now that's over perhaps his FB rig will be brought into operation. Congratulations,

2QR puts out some nice fone on 20 m.x. R max here and sounds FB. Yet on 40 CW sigs, only R6. Sfunny!

Things promise to become rather tangled in Western Suburbs now with the advent of Bill McGowan. We now have seven hams in practically 500 yards radius—22°T, 2DW, 29°O, 27°D, 2MQ, 2HE and 2MT. Still, as they are all QRF stations, things should sort themselves out all right.

2IG getting out well and has good share of DX. Heard W1 and J6 calling him almost on same freq. the other night.

2RY.—Ivan has just returned from three weeks' kangaroo shooting. Keener on driving that Vauxhall car than DX. 2VE .- Heard on 40 with T5 QRI, but

rather a good fist on the key. 2XJ deserves a pat on the fetlock for the consistent XT9 sig. he puts out. 5LP is another who has a FB T9 sig.

2EJ.-With FB crystal sig. on 40 MX called you on 20, OM. Some Harmonic!

2KF using three-stage xtal rig. Gets out F.B. Works good DX.

2FV uses two rigs one for BCL hours and one for DX. Hi! Methinks it would be easier to use two keys OM. 2WH uses 59 SC and pair 46 PP, with about 8 watts. Comes in R8 in VIS. FB OM.

2VW going strong with three-stage crystal on 20 ES 80 MX. 2PH must have installed new filter. Now

EB T9 sig. Ray, OB, good-oh! 2XU.—Skip on 40, but comes in Fone RS on 80, and very nice.

2NR .- Fone on 80 R6, but inclined bit wobbly.

2WR.—Plus Mrs. 2WR. Consistent, good fone on 80. Quite right, Mrs. 2WR, Melbourne is a splendid place from Sydney.

2LA.—Nice TS note, but inclined to murder the L and make it 2AIA. By the way, OM, was it May or Jackie Mann at SEM? Hi!

Some of the local stations have hefty Overtones or Harmonics. During listening in 2AS, 2NP and 2FY were R8 on both 20ES and 40MX bands; also 2ZR

2ZR getting out well on 40 ES. 20 QRI sounds much better on 20 than 40, Jack. 2JT getting bit DX on 20. A rumored serious contender in the VKZL test.

2HP on 20 MX, with wavery PDC signal. Bather hard to follow.

258 on 20 MX, with PDC sig., R7/8, and nice copy.

2WP .- Probably his fourth op., judging by his fist on 20 MX.

2BN on 46 QRA. Hurstville. Key clicks. R max plus at five dock. How about a filter buddle?

The ICW power leak signing VIT still holds informal afternoon parties perched comfortably inside the 40-metre band of a night. For the love of Mike, lay off there during the test!

2VG.—Rex seems to spend more time with that sailing skiff than he does on DX. Perhaps it's reaction after the WAC!

2EL contemplates a speed launch for the summer. Did bear that his FB rig was for sale very cheap. There's a chance of a FB rig, with 852 in final, for some of a FB rig, whambitious laddie.

2FD using 250 modulate. a 45 on 40 MX. with FB results. B9 from VKT, and sounds FB here. Also busy building condenser mixes. Sold his Sniggle Snooper and rebuilt TRF job.

2GR heard on 20 MX, working duplex fone with 2 MK on 30 MX. What oh, that feed back, Alec, old boy!

2MY.-QRT rebuilding for test.

250 using some nice fone on 40. Wonder how it would go on 160?

2DW on fone on 40, but not up to the usual standard; carries plenty A.C. modulation; percentage appeared small.

NOTE: 1

(By VK20J.) 2EU active again on 7 MC, but slight frequency shift noticeable.

2IG not so active as usual. Reg. had trouble with his antenna, but found meter

2VK having first trip as marine op. to Solomon Island.

2QE erected doublet antenna and appears to have little more punch.

2XI has new 88 Super, which rolls in the DX.

First morning of VK-ZL here spoilt by heavy QRN on 7 MC. 14 MC was lively. Congratulations to 2LZ and 2HZ for their fine efforts on 28 MC, both working W. and Europe. Second week-end much improved on 7 and 14 MC, and 3EG was rewarded with 35 countries.

Loudest DX sigs, heard thus far in con-test are W6KRI, R9 plus on 7 MC, and HB9AT, R9 on 14 MC.

Dictorian Division

KEY SECTION NOTES.

(By C. Woodward, VESYO.)

A poor attendance at the October Key meeting was attributed to the nearness of the DX Contest, as well as the stifling

Mr. Were (VKSDP) kindly donated a pair of special lead-in tubes as a trophy for the contest, and was warmly thanked for his action.

Much morriment was caused by the account of the various stations partaking in the 58 MC field day during September. Despite the rain and wind, everyone had a good time, even the Spartans on the top of "Pretty Sally."

Prior to the contest, the report of the doings of the different members was:-30C getting more or less indifferent results on 14 MC.

3DP was WAC in three hours on 14 m.c. (What a difference!)

3UH has had his first DX contact on 56 m.c.-500 yards! 3JJ is off the air at present, but is

hearing the W's on 28 m.c.

3UW has built a new three-stage C.C. transmitter, and is getting out well. 3WQ wants a sked on 56 m.c. for Sun-day, 24th November.

3RJ is recuperating on 28 m.c. after the Fisk contest. He would like some information on how to get a 79 note on this band when using a single 46 OSC.

3JO hopes to be on 56 m.c. soon. He is building a PP unity-coupled rig, using

3UK has the same report as 3RJ, apart from the note. Whoever heard of the R.A.A.F. with a bad note? (Who did?) 3CP now works South Americans like locals. This 14 m.c. beam antenna seems to be doing its work. It consists of two vertical half-wave antennae, a half-wave length apart, with a quarter-wave match-ing stubh and matched imy-dance feeders. It also has a switching arrangement for changing the direction of the beam.

At the time of writing, the VK contest is half over, and by appearances 3KX, 3EG and 3MR are all in the running with large

3RX had the bad luck to lose a tube on the first week-end, after having started by working a TI.

3YO fractured a crystal on the second week-end, just when things were starting

to Imppen. The conditions on 14 m.c. were peculiar on the first week-end, in that many European countries were heard at loud strength, but contacts were very hard to

get On the second week-end conditions were On the second west-east conditions were extremely poor until, at nearly 8 a.m. on Monday morning, the ZS, ZT and ZU were RS, and could be worked easily. However, the contest is going with a swing, and many thanks are due to the large number of overseas stations that are making our contest worth while.

WESTERN DISTRICT NOTES. (8HG-80W.)

(SHG-30W.)

3WE. of Birchip fame, is now in Hamilton, but has not been heard from there yet. 3JE is talking of selling out. 3JA is still working lets of DX. Has changed at the still working lets of DX. Has changed at present. 3ZK is middle at the selling out. 3ZK is not still a still working lets of DX. Has changed at present. 3ZK is not selling out of the selling of the selling of the selling is not selling in the selling gateed his WAC. Very FB. 3H65 moderately active, mainly on 14 mc., and agetting a fair share of DX. 3HG and setting a fair share of DX. 3HG and 350W recently contacted several We on 3.5 m.c., but it seemed to be only a patch, as after working them for three nights they faded out, and nothing has been heard aince. 3HL not heard in the context this patch, as guess he is having a spell after his context. The context of the context.

GOULBURN VALLEY NOTES.

(By 3DW.)

Shepparton notes conspicuous by their absence again last month. However, things have taken an active turn again. So here we are.

The writer and Mrs. Tacey spent last week-end (October 18-14) enjoying the hospitality of 3KR and family, plus that of 3TL, 3KI and 3OR.

Afriving at Kerang 10.50 a.m. on the 13th, a very sleepy Kenneth answered the 13th, a very sleepy Kenneth answered the scattling read and immediately passed seathing read and the seathing read and the seathing read of the 13TL, where we found Mr. Treb in the depths of a radio handbook, and after getting him elegr of this we inspected the rear (and very nice, too) and set sail for the 13th Sega per Tile car. Arrived there in due course, but it appears that Treb's car in like a bad dog at times and treats these as ench. No. I work say any more; just ask 3TL about it next time you QSO. Hil A conference on speed reduction goesibilities on arrival at KI's resulted in many and varied suggestions being put to Mr. Treb. including such as reducing the treb. Treb. including such as reducing the try type goes on the back bumper, more of which were necessary, as our driver adopted a more leisurely speed from there an and received many congratualitions. Continuing the trip, with 3KI now included, we more supering 3NH resulted in a certain sweet young thing (QSA all, R nil minus) informing us that "the kiddler season is in progress, but if you would care to call buck at 7.30 p.m. we will be glad to let you ase through." Ok. yeah:

Next call was 3 Zebra King's, and atriving just too late we found that "the voice of dynamic personality" had taken the YL out for the afternoon; so, after racks in the door decided to inspect various piaces of these, the concarful guidance of SEI. A final call of Jimmy before returning to Lake Bogs gained us little else but our own flux. No, we didn't do a thing, Jimmy; you must have been dreaming. Ell:

One of the most interesting parts of the various phases of citrus fruit growing, but of particular interest was the application of nitrogen to various trees by the gang.

of nitrogen to various trees by the gang.

Tas adjournment arrived, and then wretired to the shack to view the RE20 and listen to KTs dope on same. Followed a QSO with 38N by schedule with each of the containing the shade of the containing the shade of the containing the cont

Murray was found busy shearing, although was sound to show us the shear substitution of the lake and 30R. Murray has been troubled with swallow sitting on his supply lines and other things, and his simple is a recellation. Sume may be said of the ampilifier at 10R's, with triple speakers and quite a lot of Bruce Mann's fiver for no man, so we returned to 3KR's for lunch, and after inspecting the local talkie's rig set our course for Shepparton, of the fluest week-ends to date. Many thanks, gnng, and hope to have you were bere some time.

General topics to date are: -38N only needed an African to WAC twice on 20 m.x. last week. Dud. has ordered an RC90 from U.S.A. Howsat? Bruce Mann and Roy Milledge sat at last examination. Best luck, fellows!

One of the best pieces of information to hand relates a story of Roy (3CE) doing battle with tractors, grease guns (sounds like Abyssinia to me) and snakes. Says it makes his hair stand on end. And "How?" we'll say.

aPN in trouble with his rig; tells me the locals are drinking too much anake oil and he can't get time off. 3DR very quiet, canning season preparations keeping him going. 3CN contacted couple of G's on 20 What's the matter, Ted' SKI gave 2DW an FB xmtr rack, and this is now well on its way to hold a 20 mx. rig, consisting of 30 Trifet. 46 doubler and 210 PA. 3KR que units a 8 tobbe, with 400 voits on plate as units a 8 tobbe, with 400 voits on plate as considering 210's in parallel for flash amplifier. The antenns systems at this station are supported on an 80-foot stick, and consist of a full-wave 40 mx. Zepp flat top, n 40 mx. half-wave vertical, and and consist of a full-wave vertical, and so long; see you next month. 78. Well.

South Australian Division

(By Leith Cotton, VK5LG.)

A well-attended general discussion meeting was held at the club rooms on 10th ultimo, and among the Items ware:—The Division has challenged a leading motor than the erricker mutch; code practice over the control of the control of the control of the the sid of meters, etc., at student classes; social activities, and a five-metre field day to be held in the near future.

On Labor Day the Division staged one of the most successful field days that has been held in VKS, a lidden transmitter, scaled directions and scrubby country being the ingredients of transmitter was found by 5WW, he being the first man in with an unopened direction sheet.

The DX contest is in full swing now, and several VR5 hams are making good scores. However, the points given with 28 mc. GSO's have robbed the contest of a great interest, and I believe it is mainly a case of "See how many new countries" one cun work. Certainly 10 metre work will benefit test of this nature I think all band should carry the same score, irrespective of ease or difficulty.

As we go to press we hear that VK2LZ is now WAC on 10. This, I believe, is an Australian record—is it a world "first"? Heartiest congratulations to VK2LZ!

The traffic-banding context held in YKC recently resulted in a win for SMR, 64 polate; SZX, 38 points, and SMR, 39 points; SZX, 38 points, and SMR, 30 points; SZX, 38 points, and SMR, 30 points; SZX, 38 points, and SMR, 30 points; held in conjunction with the above test. One noticeable feature of these contexts is time to be seen that the sart and the last of it afterwards; i.e., if all contextants Had forwarded logs, the sart and the last of it afterwards; i.e., if all contextants Had forwarded logs, etc., the results would have been much different. SMK would have been much different. SMK would have boasted from the sart of the sart

clamored for a share in the fun, but of nearly 20 starters only one survived the course. Very encouraging for the con-veners of tests, chappies! And if next time you find yourselves out in the "cold. cold snow," you will know who to blame.

The last lecture evening of the Division was held on 25th September. Mr. A. Reiman (VKSIO) gave a very instructive and interesting lecture on "Crystal Grinding for the Amateur."

Western Australian Division

By 6LJ.

The gang have been a bit quiet lately: must be recuperating after the Flsk contest. SSA seems to be the best over the first of the state of the stat

Conditions generally have been real good, tons of dx rolling in from 1.000 to 1.700 GMT, oh 14 m.c., and from 0800 to 2.200 GMT on 7 m.c. 6MN, 6FO, 5JW. 6LJ, only VK5's keeping the former band old, only the skeeping the former came warm, and numerous others on 7 and 3.5 m.c. Yanks on 7 keep buzzing or 14 m.c. Heard a VK3 call HC2MO the other night, but no sign was heard of the South American. Hi! If he was heard of the cold mutiny may have started.

6AE burns quite a lot of oil-must be working O.K. now, Jack. 6AC, a man of leisure!

6BB qrl aero pageant! Takes Jack a month to get ready and a month to pull things to bits! H! 6BC not heard cept from 6SR on Sundays, 6BN keeps classes roling and the chickens running! H!! 6BO heard on 7 m.c., too—qrl man-made

static for Hamdon! 6CA, on 56 m.c., with pair 45's and 2406 Heising mod. Tears around in a car littening to sweet rearrangement of the state of the Bill

Bill: on again with raal. So Tried to Spill: on again with raal. So Tried to Spill: on again with raal. So Tried to Spill: on again before some of the spill of t

6LK putting up reflector system on top of 6AM's 180 feet stick-shud be O.K., minor! 6LR seldom heard, 'cept top of \$AM's 180 feet stick-shud be comediated. Cept the Sabbath PM, when he churns a continue to the Sabbath PM, when he churns a continue to the Sabbath PM, when he churns a continue to the Sabbath PM, when he churns a continue to the Sabbath PM, when he saw this YL and that stage of the Sabbath PM, which he has YLltis. RS plus gas 10. This table was finishing of his 53 Tritis, when he saw this YL and that stage on 1.75, 25, 7, 14 and 25. The 181 gard on 1.75, 25, 7, 14 and 25. The 181 gard YNIN doing some work on 7 m.c., with CW. SAW still has no antenna. The top 1 YNIN doing some work on 7 m.c., with the play Tarzan with so that he doesn't like to start just vet. 6FK may be on again shortly \$NI, on 7 m.c., with the play Tarzan with so that he doesn't like to start just vet. 6FK may be on again shortly \$NI, on 7 m.c., with the play Tarzan with so that he doesn't like to start just vet. 6FK may be on again shortly \$NI, on 7 m.c., with the play the play the start just well. The play the usyed new qra and sez au U.K. agan. 68A still quos dozens yanx and uses 28 m.c. still—uses 6 stage xtal for 28 m.c. and all 46's. Must have been good for the business. H!! 6WI returns, but still qrp for present. 6Z58—"Ole Bill' on 3.5 qsoing ZL's, VK2's and 2's ag tho

locals. Fb, Bill! 6WM out with more portable gear and makes things buzz. Yes! H6 has vibrator power supply? Yes! H6 has vibrator power supply? A409 mod. with A409 PA and 135 volts the tetres. Gets about two watts, but sounds O.K. 6WP, another be'er on been seen heart, worked or even suboked about for must be a long time. Hi! And lant, but not least, 52Z, at 6K viub. Not quite jake for qso, but will be O.K. before long.

Tasmanian Division

(By 7PA.)

(Address all correspondence to Box 547L, G.P.O., Hobart.)

A special general meeting of this Division was held on 24th September 1 diaguage the matter of altering Item 8 of the Articles of Association. The item relates to the personnel of the Council, which is limited to seven members, one being a country member.

The Secretary brought this matter before a previous meeting, on the grounds that, out of the six local members constituting the regular Council, some were not able the regular Council, some were not able to attend at most meetings, thus leaving the voting on matters of material importance to the Institute to some three or four members. The proposal was to increase the Council to 30 members, with still only one country member, and thus have nine, instead of six, available, so that it should be possible to have these meetings better attended.

After hearing the Secretary's views on this matter, it was put to the meeding, and after a lengthy discussion was carried unanimously. The three vectories created were filled by Messra. N. Gillham. J. Brown (TBJ) and K. Valentine (TKV), who were elected unapposed.

This seems to be a good move, as the membership of the Division has increased remarkably in the last 12 or 18 months, leaving more business to be handled, and reating more business to be handled, and thus more responsibility for the officers entrusted with the work of carrying it out. It is also pleasing to see the younger members, in the persons of 7RJ and 7KV, showing sufficient interest as to be pre-pared to take office.

The special meeting was closed immediately the business was completed, and a general meeting was then declared to discuss any general business that might be

The outcome of this section of the meeting was the arranging for a field day for 27th October, to take the form of a more or less social outing with YL's, YF's. etc. accompanying, the area to be within a 10 miles' radius of Brown's River.

While speaking of field days, it is pleasing to note the special reference and to VKT field days at a meeting recently in VKG by their Convention departs (6WP), who had the opportunity of national days are the convention of the so much.

The October general meeting was held in the club room, Elizabeth street, on the 1st, it so happening that it was the first Tuesday. Attendance was fair.

General business and accounts were handled, and the VK7 per capita payment was at hast included. A legal interpretation of the Articles concerning outstanding subscriptions and the matter of control of subscriptions and the matter of control of railing given to the grading question, it was decided to call another special meeting to discuss and, if necessary, after the Articles governing this matter, to define more fully and to introduce controlling the control of the next general meeting, and save the neces-sity of two meeting nights.

At the completion of the lecture, the lecture for the evening followed. This was given by Mr. Brettingham - Moore, a given by Mr. Brettingnam - Moore, a student member, and took the form of an outline of a series of experiments with Neon Tube Oscillators, conducted by the lecturer. The lecture was well arranged and illustrated with graphs, after which a practical demonstration was given with an oscillator constructed nudio Brettingham-Moore

the lecture, the At the conclusion of the lecture, the President, in thanking the lecturer for the trouble he had gone to in arranging the details, expressed appreciation of the details, expressed appreciation of the details, expressed that more of the younger members might that more of the younger members might take this as an incentive to brush up on their favourite subject and let us hear about it in the near future. A hearty round of applause was extended to the lecturer, and the meeting closed. At the conclusion of

On the bands, 7JB is working contest at express speed, and is giving the BCL's a

TKV is taking a passing interest, too, and I hear that he has broken the VK7's 10-metre record by working a Yank recently on that band.

7CW still does his stough on 200-metre phone, and 7PA is again operating on this band with a new rig, and is busy rebuilding the SW rig into the rack and panel outfit now, and hopes to be on the nir on CW again soon.

7JH is busy with an instruction class at present, and not much time for QSO's,

7BJ is learning to call "Fares, please!" at the moment. How do you like the early rising, Joe?

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(Continued from page 13)

the greatest forward step will have been made since we received our call signs as made since we received our call signs as both District and Section Commanders will be immeasurably easier, as traffic should be able to slip through in very much time, no doubt, before we can settle into the changed conditions, but I'm sure, when we do, we will wonder how we ever kept going efficiently under the old system.

As there have been no regular schedules this month, traffic totals are too small to be included.

SIXTH DISTRICT NOTES 6ZI —6MN.)

The recent flight of Demons and Buildogs to Perth did not a much much dogs to Perth did not a much interest or enthusiasm way are not not all the properties of the properties of the properties as more or less a moral properties as more or less a moral and 5.42 proved erratic owing to adverse conditions, but all members concerned kept daily watches in case of verse conditions, but all members concerned kept daily watches in case of were startled when 622 put in an appearance on 3.5 m.c. after an absence of several months. 6.22 put in an appearance on 3.5 m.c. after an absence of several months. 6.22 stull keeps of several months of 8.22 put in an appearance on 3.5 m.c. after an absence the properties of the properties of the properties of several months. 6.21 studies along the properties of the propert of the properties of the properties of the properties of the pr

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